



# SLDS Topical Webinar Summary

## Use of the Common Education Data Standards (CEDS)

*States face many data management challenges as they build, expand, and sustain their statewide longitudinal data systems (SLDSs). The Common Education Data Standards (CEDS) and its associated tools can help states address many of these challenges and establish data management practices and activities. Representatives from North Carolina and Virginia discuss how their states have used CEDS to support data sharing, data governance, and other SLDS work.*

### North Carolina: Developing Data Dictionaries and Facilitating Data Sharing

North Carolina has expanded its longitudinal data-sharing efforts over time, beginning by integrating records across education programs at the K12 level. The state grew its efforts to share data among P-20W+ (early childhood through workforce) agencies within the state and with other states. The state uses a federated SLDS model, which enables data exchanges among partner agencies' data systems without storing the records in a central data warehouse. The federated model depends on SLDS managers and users who have a comprehensive and current understanding of the data elements within each source system and how they align to elements in other systems. CEDS has been an integral part of standardizing data dictionaries and facilitating exchanges at all levels.

#### *K12 data sharing*

When beginning the state's K12 SLDS—known as the Common Education Data Analysis and Reporting System, or CEDARS—project leaders at the North Carolina Department of Public Instruction (NCDPI) soon realized that they would need a common language to integrate data across the department. Although individual programs within the department used similar data elements in their individual data systems, the names and definitions of those elements often varied. Project leaders decided to map the data elements that would appear in CEDARS to the common element names and definitions in CEDS, providing all programs with a common

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For more information on the IES SLDS Grant Program or for support with system development, please visit  
<http://nces.ed.gov/programs/SLDS>.



#### **Align** (<https://ceds.ed.gov/align.aspx>)

Users can import their data dictionary and map their elements to align with the CEDS Standards, as well as view and compare other users' published maps using CEDS alignment reports.

#### **Connect** (<https://ceds.ed.gov/connect.aspx>)

Connect allows users to select and view the alignment to various education data-related components, including indicators/metrics, policy questions, and state EDFacts metrics.

#### **myConnect** (<http://ceds.ed.gov>, click on Tools)

The myConnect feature allows users to apply their aligned maps to the elements needed for any connection.



understanding of the meaning of each element. The state intends to use CEDS as the basis for a CEDARS data dictionary and possibly for a department-wide data dictionary incorporating data elements that are not currently part of CEDARS.

*P-20W+ data sharing*

CEDS also provides the foundation for North Carolina’s P-20W+ SLDS, which currently incorporates data from NCDPI, the North Carolina Community College System, the University of North Carolina System, North Carolina Independent Colleges and Universities, and the North Carolina Department of Commerce. Early in the P-20W+ effort, the state received assistance from the SLDS State Support Team to align each partner agency’s data elements to CEDS. Staff members from state workforce programs have also been involved in a CEDS committee and are aligning their own data elements to CEDS. The direct involvement of key personnel from all P-20W+ agencies in using CEDS eases communication about SLDS work as well as data sharing among the partners.

North Carolina SLDS leaders have recommended new data elements for future versions of CEDS based on needs identified in their data exchange work. State agencies realized they needed to include additional metadata in their individual data systems to facilitate data sharing, and these metadata fields do not currently exist in CEDS. The SLDS team hopes that the new CEDS elements will allow partner agencies to continue using CEDS as a common data dictionary. Additionally, the SLDS team hopes partners will align their data systems to CEDS rather than maintaining separate dictionaries to accommodate the additional metadata fields.

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*Cross-state data exchanges*

North Carolina also relies on CEDS to facilitate data sharing with other states. North Carolina is part of the State Exchange of Education Data (SEED), a multi-state data-sharing partnership that also includes Alabama, Colorado, Florida, Georgia, Kentucky, Oklahoma, and South Carolina. SEED is in the process of aligning each state’s SLDS to CEDS to more easily identify and share data for students who transfer to school districts in another state. Such data exchanges allow school districts to calculate measures such as dropout and graduation rates more accurately. It also allows them to identify students who may need to be enrolled in special education or other services in their new state.

**Virginia: Helping Users Find and Understand Data**

Like North Carolina, Virginia has a federated SLDS and uses CEDS as a data dictionary to help coordinate data exchanges among its partner agencies. Increasingly, Virginia is taking advantage of CEDS’ common data definitions to more efficiently serve users both inside and outside of the state who request SLDS data.

Virginia has provided its state-specific data standards online for more than a decade. Users ranging from educators at local school districts to researchers and members of the news media have taken advantage of these public standards to browse data elements available through the SLDS and

Field	Sample Data	Data Format	Description
<div>Virginia data element name</div> <div>Disability Flag</div> <div>(CEDS element name: IDEA Indicator)</div> <div>CEDS data element name</div>	Y	CHAR(1) or NULL	<p>A person having intellectual disability; hearing impairment, including deafness; speech or language impairment; visual impairment, including blindness; serious emotional disturbance (hereafter referred to as emotional disturbance); orthopedic impairment; autism; traumatic brain injury; developmental delay; other health impairment; specific learning disability; deaf-blindness; or multiple disabilities and who, by reason thereof, receive special education and related services under the Individuals with Disabilities Education Act (IDEA) according to an Individualized Education Program (IEP), Individual Family Service Plan (IFSP), or service plan.</p> <p>The valid values: Y = Yes N = No</p> <p>NULL values are used to indicate that IDEA Indicator was not considered when compiling the aggregate counts or rates for the record.</p>

Figure 1. Virginia’s publicly available data dictionaries include the name of the corresponding CEDS data element alongside the Virginia element name.

Virginia hopes that new dictionaries featuring CEDS element names will help users find data quickly and understand the context behind the data.

develop targeted requests for the data they need. In recent years, the state has seen a growing demand for its data from graduate students, researchers, and other users at the state and national levels who are interested in building multi-state datasets. These users need to know whether Virginia's data elements are directly comparable to elements of the same or similar names collected in other states. Virginia Department of Education staff will work directly with researchers to determine the data elements they need. The state has also begun to incorporate CEDS data elements into its public data dictionaries so that users can see for themselves how Virginia's elements compare.

The Virginia Department of Education is in the process of uploading new data dictionaries to the Statistics and Reports section of its website for each dataset available for download on the site. These dictionaries list the data elements contained in the datasets and provide metadata on each element, including a definition, information about how the data are collected, valid values and null indicators, and any suppression rules that are in place for privacy reasons. The dictionaries also include the corresponding CEDS data element name alongside the Virginia element name. In many cases the Virginia element name and the CEDS name are similar, but some elements use state-specific terminology—such as “division” instead of “district” to refer to local education agencies. Such terminology could confuse users unfamiliar with Virginia's education environment. The state hopes the new dictionaries will help users find data quickly and understand the context behind the data without relying on SLDS staff to guide them to the information they need.

## Additional Uses for CEDS

In addition to the activities already described, North Carolina and Virginia currently use or plan to use CEDS to support the following data management tasks:

- *EDFacts and other federal reporting.* The CEDS Connect tool features connections that identify the data elements and associated business rules needed to fulfill reporting requirements for EDFacts and other federal programs. These connections can be combined with a state's CEDS-aligned data system map to determine which of the state's data elements are needed for a specific report.
- *Vendor management.* By writing CEDS alignment into requests for proposals and contracts with data system vendors, states can exert some control over the structure of vendor-designed systems and make future data exchanges with other systems easier. Building a CEDS-compliant data system also gives states greater flexibility to modify the system or switch to another vendor mid-project if necessary.
- *Data security.* Most data systems include elements with different levels of sensitivity and different restrictions on who can access them. Some data elements pose few privacy concerns and can be viewed by a wide range of users. Others are highly classified and can be accessed only by authorized users. CEDS can be a platform for categorizing data elements according to their sensitivity and documenting processes for managing each category.

At the national level, SLDS representatives are working with the State Support Team and U.S. Department of Education staff to identify best practices around the use of common metrics and calculations for employment and earnings data. These practices will be included in a future version of CEDS to encourage the development of comparable data from state to state.

## Additional Resources

Common Education Data Standards (CEDS)  
<https://ceds.ed.gov/>

CEDS and SLDS – Aligning Efforts: SLDS Issue Brief  
<https://slds.grads360.org/#communities/pdc/documents/5232>

EDFacts  
<http://www2.ed.gov/about/inits/ed/edfacts/index.html>

North Carolina Department of Public Instruction  
<http://www.ncpublicschools.org>

Privacy Classifications for Washington's Data: SLDS Spotlight  
<https://slds.grads360.org/#communities/pdc/documents/7901>

Virginia Department of Education  
<http://www.doe.virginia.gov/>